



US009636194B2

(12) **United States Patent**
Fatiny

(10) **Patent No.:** **US 9,636,194 B2**
(45) **Date of Patent:** **May 2, 2017**

(54) **DENTAL DEVICE WITH DUAL SALIVA
EXTRACTION AND DUAL RETRACTOR**

(71) Applicant: **King Saud University**, Riyadh (SA)

(72) Inventor: **Fahad Ibrahim Fatiny**, Riyadh (SA)

(73) Assignee: **King Saud University**, Riyadh (SA)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 106 days.

(21) Appl. No.: **14/274,802**

(22) Filed: **May 12, 2014**

(65) **Prior Publication Data**

US 2015/0320527 A1 Nov. 12, 2015

(51) **Int. Cl.**

A61C 17/10 (2006.01)

A61C 17/06 (2006.01)

A61B 13/00 (2006.01)

(52) **U.S. Cl.**

CPC **A61C 17/043** (2013.01); **A61B 13/00**
(2013.01)

(58) **Field of Classification Search**

CPC **A61C 17/04**; **A61C 17/043**; **A61C 5/14**;
A61B 1/06; **A61B 1/24**

USPC 433/91-96

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,401,646 A * 12/1921 Ronn **A61C 17/043**

433/140

2,519,595 A * 8/1950 Older **A61C 17/043**

138/118

2,587,008 A 10/1950 Stadelmann

2,859,519 A * 11/1958 Cohn **A61C 17/043**

433/93

3,078,578 A * 2/1963 White **A61C 17/043**

433/136

3,256,885 A * 6/1966 Higgins **A61C 17/043**

433/91

3,396,468 A * 8/1968 Dayhoff **A61C 5/122**

433/140

3,426,430 A * 2/1969 Newman **A61C 17/043**

433/96

3,455,024 A * 7/1969 Gelarie **A61C 17/043**

433/93

3,916,880 A * 11/1975 Schroer **A61B 1/24**

600/205

4,019,255 A * 4/1977 Cohen **A61C 17/043**

433/93

(Continued)

FOREIGN PATENT DOCUMENTS

DE 19942256 A1 * 3/2001 **A61C 5/14**

FR 1108049 A * 1/1956 **A61C 17/043**

(Continued)

Primary Examiner — Cris L Rodriguez

Assistant Examiner — Matthew Saunders

(74) *Attorney, Agent, or Firm* — Hauptman Ham, LLP

(57) **ABSTRACT**

A dental device with dual saliva extractors and dual retractors for the tongue and upper lip and method are connectable to a suction and disposal unit. The device includes a pair of extractors each of which includes a suction tip and a tubular member for connecting the tip to the sources of suction. A first of the tubular members is put into a patient's mouth with a first curved portion inserted in a lower portion of the patient's mouth over the tongue and behind the front teeth and a second curved portion separate from said first portion branched off from where the first portion crosses the lower teeth and is inserted between the upper lip and upper molars under the region of the Stenson's duct.

1 Claim, 2 Drawing Sheets

